

57. The method according to Claim 22, further comprising the step of:
removing said at least one conductive barrier layer from horizontal
portions between said recesses.
58. The method according to Claim 57, wherein said electroplated second
metal acts as a mask for the removal of said at least one conductive barrier layer.
59. The method according to Claim 22, wherein said at least one metal feature
is formed in said substrate.
60. The method according to Claim 22, wherein said insulating layer includes
a layer of an oxide and a nitride and at least one layer of a polyimide.
61. The method of Claim 60, further comprising
forming a layer of at least one nitride or other passivation layer over the
polyimide.
62. The method according to Claim 22, wherein said second metal is a solder
ball.

REMARKS

Claims 1-62 are now in the application. Claims 1, 16, 20, 22 and 23 have been amended by deleting the phrase “the steps of” or “the step of” which seems superfluous.

Claims 24-43 do not recite “depositing a photoresist layer over said plating seed layer” and “remaining portions of said photoresist layer” and “removing photoresist remaining in said at least one recess” contained in Patent Claim 1 and claims dependent therein and do not recite “providing a pad in said at least one recess for preventing removal of portions of said seed layer in said at least one recess” and “removing said pad” included in Patent Claim 22 and claims dependent thereon. Not requiring the above features is supported by the original patent. For instance, although these features relate to

preferred aspects of the invention in order to assure the preventing of dishing of the seed layer in the depression, they are not mandatory. In particular, the disclosure at column 6, lines 3-4 and 42-44 disclose the optional nature of these embodiments.

For instance, column 6, lines 3-4 state:

“After formation of the seed layer, a photoresist may be deposited over the seed layer.”

Column 6, lines 42-44 state:

“According to an alternative embodiment, photoresist may not be utilized. Since an embodiment may utilize a very hard pad to prevent dishing of the seed layer in the depression.”

The use of the term “may” with the above statements is a clear appreciation and recognition that the method is being practiced without employing these steps. This is further supported by column 6, line 53 that states

“After removal of the resist, if necessary . . .”

Newly presented claims 44-62 generally correspond to claim 2-12 and 14-21, respectively except that they ultimately depend upon claim 22 rather than ultimately from Claim 1. Claim 54 further differs from Claim 12 in not reciting the “photoresist layer.”

Accordingly, the amendments to the claims or newly presented claims do not introduce any new matter.

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